

In the Claims

1-10. (cancelled)

11. (new) A method for endoscopic application of self-closing medical clips, comprising the steps of:

placing a distal end of a catheter tube in a body of a living being to be treated;

arranging at least one self-closing medical clip with relatively movable legs in the catheter tube adjacent the distal end by an operator located on a proximal end of the catheter tube, the clip having a first kink in a first area of each leg extending outwardly and increasing a distance between the legs and a second kink in a second area nearer a distal leg end of the clip than the first area but spaced from the distal leg end extending inwardly and forming a point of mutual support for the legs;

pushing the clip out of the distal end;

opening the clip by an actuator having an actuating element acting on the clip, being movable longitudinally in the catheter tube, being actuated by the operator and having a control part converting an actuating force of the actuating element into a motion opening the legs of the clip; and

detaching the actuating element from the clip after opening of the clip to release and close the legs of the clip to apply the clip.

12. (new) A method according to claim 11 wherein

the legs of the clip are symmetrical, are mirror images of one another and do not cross one another.

13. (new) A method according to claim 11 wherein

a plurality of other clips, similar to the one clip, are arranged in succession in the catheter tube; and

after application of the clip at the distal end of the catheter tube, the actuating device is functionally linked to the clip next following in the catheter tube.

14. (new) A device for endoscopic application of self-closing medical clips in a body of a living being, comprising:

a catheter tube having a distal end placeable in the body and a proximal end placeable outside the body;

an operator at said proximal end;

an actuator extending in said catheter tube from said operator in an area adjacent said distal end, having an actuating element movable longitudinally in said catheter tube and controlled by said operator, and having at least one control part with a distal end edge on a sleeve-shaped receiving part; and

at least one clip adjacent to and directly engaging said distal end edge and having a part received in said actuating element and two adjacent legs, said legs having first kinks extending outwardly and increasing a distance between said legs in first areas of said legs and second kinks

extending inwardly and forming a mutual support for said legs in second areas of said legs nearer to a distal leg end of said clip than said first area, but spaced from said distal leg end without said legs crossing one another;

whereby said legs are opened by said first kinks engaging said control part when said clip is inserted into said sleeve-shaped receiving part which converts an actuating force of said actuating element into an opening motion of said legs with said second areas engaging one another.

15. (new) A device according to claim 14 wherein
said actuating element comprises a pulling element; and
said distal end edge comprises a beveled control surface.

16. (new) A device according to claim 15 wherein
said pulling element comprises a pull cable; and
said clip is connected to said pull cable by a rear end crosspiece connecting said legs of said clip, said rear end crosspiece having two adjacent through holes through which said pull cable extends in a loop connecting an advancing strand extending from said operator to said rear end crosspiece to a retreating strand extending to said operator from said rear end crosspiece.

17. (new) A device according to claim 16 wherein

said rear end crosspiece comprises a section between said through holes forming a predetermined breaking point fracturable by a pulling force of said pull cable via said loop thereof to detach said pull cable from said clip.

18. (new) A device according to claim 17 wherein

a blocking element is located on said distal end of said catheter tube, said blocking element permitting passage of said sleeve-shaped receiving part only in an exit direction forward from said catheter tube and supporting said sleeve-shaped receiving part against motion rearwardly into said catheter tube effected by the pulling force of said pull cable.

19. (new) A device according to claim 18 wherein

said blocking element comprises a tube piece mounted on said distal end of said catheter tube and having an end part forming a collet with jaws extending longitudinally, said jaws normally biased to reduce a width of a passage through said collet in a normal position thereof, being elastically spreadable radially outwardly from the normal position by said sleeve-shaped receiving part passing through said passage and being returnable to the normal position to form a support for said sleeve-shaped receiving part against the pulling force of the pull cable after said sleeve-shaped receiving part emerged from said collet.

20. (new) A device according to claim 16 wherein

at least one other clip and at least one other control part, similar to said one clip and said one control part, respectively, are mounted in succession with said one clip and said one control part in said catheter tube; and

said advancing strand and said retreating strand extend through respective through holes in a rear end crosspiece joining legs of said other clip.

21. (new) A device according to claim 16 wherein

said actuator comprises a tube movable in said actuator tube and having an end edge forming a plunger contacting a facing back end of said sleeve-shaped receiving part.

22. (new) A device according to claim 19 wherein

sleeve-shaped receiving part comprises a back end opposite said beveled control surface with an axially projecting shoulder receivable in said collet to center said sleeve-shaped receiving part relative to said blocking element.

23. (new) A self-closing medical clip, comprising:

a crosspiece;

first and second legs extending adjacent one another from said crosspiece to distal ends thereof and biased toward one another;

first kinks in said legs extending outwardly and increasing a distance between said legs in first areas of said legs; and

second kinks in said legs extending inwardly and forming a mutual support for said legs in second areas of said legs, said second areas being nearer said distal ends than said first areas but being spaced from said distal ends.

24. (new) A self-closing medical clip according to claim 23 wherein
said legs do not cross one another.

25. (new) A self-closing medical clip according to claim 23 wherein
said crosspiece has two adjacent through holes with a predetermined breaking point extending therebetween.

26. (new) A self-closing medical clip according to claim 23 wherein
said distal ends of said legs are bent toward one another at a location spaced from said second kinks.

27. (new) A method according to claim 11 wherein
distal ends of the legs are bent toward one another at a location spaced from said second kinks.

28. (new) A device according to claim 14 wherein
distal ends of said legs are bent toward one another at a location spaced from said second kinks.